

SEQUENCE LISTING

<110> EXELIXIS, INC.

<120> MELKS AS MODIFIERS OF THE RAC PATHWAY AND METHODS OF USE

<130> EX04-059C-PC

<150> US 60/495,193

<151> 2003-08-14

<160> 6

<170> PatentIn version 3.2

<210> 1

<211> 2470

<212> DNA

<213> Homo sapiens

<400> 1

ttggcggg	cg	gaagcggcca	caaccggcg	atcgaaaaga	ttcttaggaa	cgccgtacca	60
gccgcgtctc	tcaggacagc	aggccctgt	ccttctgtcg	ggcgccgctc	agccgtgccc		120
tccgcccctc	aggttctttt	tctaattcca	aataaacttg	caagaggact	atgaaagatt		180
atgatgaact	tctcaaatat	tatgaattac	atgaaactat	tgggacaggt	ggctttgcaa		240
agggtcaaact	tgcctgccat	atccttactg	gagagatggt	agctataaaa	atcatggata		300
aaaacacact	agggagtgat	ttgccccgga	tcaaaacgga	gattgaggcc	ttgaagaacc		360
tgagacatca	gcatatatgt	caactctacc	atgtgctaga	gacagccaac	aaaatattca		420
tggttcttga	gtactgccct	ggaggagagc	tgtttgacta	tataatttcc	caggatcgcc		480
tgtcagaaga	ggagaccggg	gttgtcttcc	gtcagatagt	atctgctggt	gcttatgtgc		540
acagccaggg	ctatgctcac	agggacctca	agccagaaaa	tttgctgttt	gatgaatatc		600
ataaattaaa	gctgattgac	tttggtctct	gtgcaaaacc	caagggtaac	aaggattacc		660
atctacagac	atgctgtggg	agtctggctt	atgcagcacc	tgagttaata	caaggcaa		720
catatcttgg	atcagaggca	gatgtttgga	gcatgggcat	actgttatat	gttcttatgt		780
gtggatttct	accatttgat	gatgataatg	taatggcttt	atacaagaag	attatgagag		840
gaaaatatga	tgttccaag	tggctctctc	ccagtagcat	tctgcttctt	caacaaatgc		900
tgcagggtga	cccaaagaaa	cggatttcta	tgaaaaatct	attgaaccat	ccctggatca		960
tgcaagatta	caactatcct	gttgagtggc	aaagcaagaa	tccttttatt	cacctgatg		1020
atgattgcgt	aacagaactt	tctgtacatc	acagaaacaa	caggcaaaca	atggaggatt		1080

taatttcact	gtggcagtat	gatcacctca	cggctaccta	tcttctgctt	ctagccaaga	1140	
aggctcgggg	aaaaccagtt	cgtttaaggc	tttcttcttt	ctcctgtgga	caagccagtg	1200	
ctaccccat	cacagacatc	aagtcaaata	attggagtct	ggaagatgtg	accgcaagtg	1260	
ataaaaaatta	tgtggcggga	ttaatagact	atgattgggtg	tgaagatgat	ttatcaacag	1320	
gtgctgctac	tccccgaaca	tcacagttta	ccaagtactg	gacagaaatca	aatgggggtg	1380	
aatctaaatc	attaactcca	gccttatgca	gaacacctgc	aaataaatta	aagaacaaaag	1440	
aaaatgtata	tactcctaag	tctgctgtaa	agaatgaaga	gtactttatg	tttcctgagc	1500	
caaagactcc	agttaataag	aaccagcata	agagagaaat	actcactacg	ccaaatcgtt	1560	
acactacacc	ctcaaaagct	agaaaccagt	gcctgaaaga	aactccaatt	aaaataccag	1620	
taaattcaac	aggaacagac	aagttaatga	cagggtgcat	tagccctgag	aggcggtgcc	1680	
gctcagtgga	attggatctc	aaccaagcac	atatggagga	gactccaaaa	agaaagggag	1740	
ccaaagtgtt	tgggagcctt	gaaagggggt	tggataaggt	tatcactgtg	ctcaccagga	1800	
gcaaaaggaa	gggttctgcc	agagacgggc	ccagaagact	aaagcttcac	tataatgtga	1860	
ctacaactag	attagtgaat	ccagatcaac	tgttgaatga	aataatgtct	attcttccaa	1920	
agaagcatgt	tgactttgta	caaaagggtt	atacactgaa	gtgtcaaaca	cagtcagatt	1980	
ttgggaaagt	gacaatgcaa	tttgaattag	aagtgtgcca	gcttcaaaaa	cccgatgtgg	2040	
tgggtatcag	gaggcagcgg	cttaaggggcg	atgcctgggt	ttacaaaaga	ttagtggaag	2100	
acatcctatc	tagctgcaag	gtataattga	tggattcttc	catcctgccg	gatgagtgtg	2160	
ggtgtgatac	agcctacata	aagactgtta	tgatcgcttt	gattttaaag	ttcattggaa	2220	
ctaccaactt	gtttctaaag	agctatctta	agaccaatat	ctctttgttt	ttaaacaaaa	2280	
gatattat	ttt	gtatgaa	tctaaatcaa	gcccatctgt	cattatgtta	ctgtcttttt	2340
taatcatgtg	gttttgata	ttaataattg	ttgactttct	tagattcact	tccatatgtg		2400
aatgtaagct	cttaactatg	tctctttgta	atgtgtaatt	tctttctgaa	ataaaaccat		2460
ttgtgaatat							2470

<210> 2
 <211> 2510
 <212> DNA
 <213> Homo sapiens

<400> 2	
ggcacgaggc	gaaaagattc ttaggaacgc cgtaccagcc gcgtctctca ggacagcagg 60

ccccgtcct tctgtcgggc gccgctcagc cgtgccctcc gcccctcagg ttctttttct	120
aattccaaat aaacttgcaa gaggactatg aaagattatg atgaacttct caaatattat	180
gaattacatg aaactattgg gacaggtggc tttgcaaagg tcaaacttgc ctgccatatc	240
cttactggag agatggtagc tataaaaaatc atggataaaa acacactagg gagtgatttg	300
ccccggatca aaacggagat tgaggccttg aagaacctga gacatcagca tatatgtcaa	360
ctctaccatg tgctagagac agccaacaaa atattcatgg ttcttgagta ctgccctgga	420
ggagagctgt ttgactatat aatttcccag gatcgccctgt cagaagagga gaccggggtt	480
gtcttccgtc agatagtatc tgctgttgct tatgtgcaca gccagggcta tgctcacagg	540
gacctcaagc cagaaaaattt gctgtttgat gaatatcata aattaaagct gattgacttt	600
ggtctctgtg caaaacccaa gggtaacaag gattaccatc tacagacatg ctgtgggagt	660
ctggccttatg cagcacctga gttaatacaa ggcaaatcat atcttggatc agaggcagat	720
gtttggagca tgggcatact gttatatgtt cttatgtgtg gatttctacc atttgatgat	780
gataatgtaa tggcctttata caagaagatt atgagaggaa aatatgatgt tcccaagtgg	840
ctctctccca gtagcattct gcttcttcaa caaatgctgc aggtggaccc aaagaaacgg	900
atttctatga aaaatctatt gaaccatccc tggatcatgc aagattacaa ctatcctgtt	960
gagtggcaaa gcaagaatcc ttttattcac ctcgatgatg attgcgtaac agaactttct	1020
gtacatcaca gaaacaacag gcaaacaatg gaggatttaa tttcactgtg gcagtatgat	1080
cacctcacgg ctacctatct tctgcttcta gccaaagaagg ctcggggaaa accagttcgt	1140
ttaaggcttt cttctttctc ctgtggacaa gccagtgcta cccattcac agacatcaag	1200
tcaaataatt ggagtctgga agatgtgacc gcaagtgata aaaattatgt ggcgggatta	1260
atagactatg attggtgtga agatgattta tcaacagggtg ctgctactcc ccgaacatca	1320
cagtttacca agtactggac agaatcaa atgggtggaat ctaaatcatt aactccagcc	1380
ttatgcagaa cacctgcaaa taaattaaag aacaaagaaa atgtatatac tcctaagtct	1440
gctgtaaaga atgaagagta ctttatgttt cctgagccaa agactccagt taataagaac	1500
cagcataaga gagaaatact cactacgcca aatcggtaca ctacaccctc aaaagctaga	1560
aaccagtgcc tgaaagaaac tccaattaaa ataccagtaa attcaacagg aacagacaag	1620
ttaatgacag gtgtcattag ccctgagagg cggtgccgct cagtggaatt ggatctcaac	1680
caagcacata tggaggagac tccaaaaaga aaggagacca aagtgtttgg gagccttgaa	1740
aggggggttg ataaggttat cactgtgctc accaggagca aaaggaaggg ttctgccaga	1800

gacgggcca gaagactaaa gcttcactat aatgtgacta caactagatt agtgaatcca	1860
gatcaactgt tgaatgaaat aatgtctatt cttccaaaga agcatgttga ctttgtacaa	1920
aaggggttata cactgaagtg tcaaacacag tcagattttg ggaaagtgac aatgcaattt	1980
gaattagaag tgtgccagct tcaaaaaccc gatgtggtgg gtatcaggag gcagcggctt	2040
aagggcgatg cctgggttta caaaagatta gtggaagaca tcctatctag ctgcaaggta	2100
taattgatgg attcttccat cctgccgat gagtgtgggt gtgatacagc ctacataaag	2160
actgttatga tcgctttgat tttaaagttc attggaacta ccaacttggt tctaaagagc	2220
tatcttaaga ccaatatctc tttgttttta aacaaaagat attattttgt gtatgaatct	2280
aaatcaagcc catctgtcat tatgttactg tcttttttaa tcatgtggtt ttgtatatta	2340
ataattgttg actttcttag attcacttcc atatgtgaat gtaagctctt aactatgtct	2400
ctttgtaatg tgtaatttct ttctgaaata aaaccatttg tgaatataaa aaaaaaaaaa	2460
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa	2510

<210> 3
 <211> 2158
 <212> DNA
 <213> Homo sapiens

<400> 3	
gctagcgcta ccggactcag atctattttag gtgacactat agaagagcca agctgctcga	60
gccgccacca tggactacaa ggacgatgac gataagggat ccaaagatta tgatgaactt	120
ctcaaataatt atgaattaca tgaaactatt gggacagggtg gctttgcaaa ggtcaaactt	180
gcctgccata tccttactgg agagatggta gctataaaaa tcatggataa aaacacacta	240
gggagtgatt tgccccgat caaaacggag attgaggcct tgaagaacct gagacatcag	300
catatatgtc aactctacca tgtgctagag acagccaaca aaatattcat ggttcttgag	360
tactgccctg gaggagagct gtttgactat ataatttccc aggatcgctt gtcagaagag	420
gagaccggg ttgtcttccg tcagatagta tctgctgttg cttatgtgca cagccagggc	480
tatgctcaca gggacctcaa gccagaaaat ttgctgtttg atgaatatca taaattaaag	540
ctgattgact ttggtctctg tgcaaaaaccc aagggttaaca aggattacca tctacagaca	600
tgctgtggga gtctggctta tgcagcacct gagttaatac aaggcaaatac atatcttga	660
tcagaggcag atgtttggag catgggcata ctgttatatg ttcttatgtg tggatttcta	720
ccatttgatg atgataatgt aatggcttta tacaagaaga ttatgagagg aaaatatgat	780

gttcccaagt ggctctctcc cagtagcatt ctgcttcttc aacaaatgct gcaggtggac	840
ccaaagaaac ggatttctat gaaaaatcta ttgaaccatc cctggatcat gcaagattac	900
aactatcctg ttgagtggca aagcaagaat ccttttattc acctcgatga tgattgcgta	960
acagaacttt ctgtacatca cagaaacaac aggcaaaca tggaggattt aatttctactg	1020
tggcagtatg atcacctcac ggctacctat cttctgcttc tagccaagaa ggctcgggga	1080
aaaccagttc gtttaaggct ttcttctttc tctgtggac aagccagtgc taccctattc	1140
acagacatca agtcaaataa ttggagtctg gaagatgtga ccgcaagtaa taaaaattat	1200
gtggcgggat taatagacta tgattggtgt gaagatgatt tatcaacagg tgctgctact	1260
ccccgaacat cacagtttac caagtactgg acagaatcaa atgggggtgga atctaaatca	1320
ttaactccag ccttatgcag aacacctgca aataaattaa agaacaaaga aaatgtatat	1380
actcctaagt ctgctgtaaa gaatgaagag tactttatgt ttcctgagcc aaagactcca	1440
gttaataaga accagcataa gagagaaata ctactacgc caaatcgta cactacaccc	1500
tcaaaagcta gaaaccagtg cctgaaagaa actccaatta aaataccagt aaattcaaca	1560
ggaacagaca agttaatgac aggtgtcatt agccctgaga ggcggtgccg ctcaagtggaa	1620
ttggatctca accaagcaca tatggaggag actccaaaaa gaaagggagc caaagtgttt	1680
gggagccttg aaaggggggt ggataagggt atcactgtgc tcaccaggag caaaagggaag	1740
ggttctgcca gagacgggcc cagaagacta aagcttact ataatgtgac tacaactaga	1800
ttagtgaatc cagatcaact gttgaatgaa ataatgtcta ttcttccaaa gaagcatgtt	1860
gactttgtac aaaagggtta tacactgaag tgtcaaacac agtcagattt tgggaaagtg	1920
acaatgcaat ttgaattaga agtgtgccag cttcaaaaac ccgatgtggg gggatatcagg	1980
aggcagcggc ttaagggcga tgcctgggtt taaaaagat tagtggaaga catcctatct	2040
agctgcaagg tagaattctg ataatgagcg gccgcctcgg ccaaacatcg ataaaataaa	2100
agattttatt tagtctccag aaaaaggggg gaatgaaaga cccacctgt aggtttgg	2158

<210> 4
 <211> 1734
 <212> DNA
 <213> Homo sapiens

<400> 4	
tatttaggtg acactataga agagccaagc tgctcgagcc gccaccatgg actacaagga	60
cgatgacgat aagggatcca aagattatga tgaacttctc aaatattatg aattacatga	120

aactattggg acaggtggct ttgcaaaggt caaacttgcc tgccatatcc ttactggaga	180
gatggtagct ataaaaatca tggataaaaa caCactaggg agtgatttgc cccggatcaa	240
aacggagatt gaggccttga agaacctgag acatcagcat atatgtcaac tctaccatgt	300
gctagagaca gccaacaaaa tattcatggg tcttgagggt aacaaggatt accatctaca	360
gacatgctgt gggagtctgg cttatgcagc acctgagtta atacaaggca aatcatatct	420
tggatcagag gcagatgttt ggagcatggg catactgtta tatgtttctta tgtgtggatt	480
tctaccatth gatgatgata atgtaatggc tttatacaag aagattatga gagggaaaata	540
tgatgttccc aagtggctct ctcccagtag cattctgctt cttcaacaaa tgctgcaggt	600
ggacccaaaag aaacggatth ctatgaaaaa tctattgaac catccctgga tcatgcaaga	660
ttacaactat cctgttgagt ggcaaagcaa gaatccttht attcacctcg atgatgattg	720
cgtaacagaa ctttctgtac atcacagaaa caacaggcaa acaatggagg atttaatttc	780
actgtggcag tatgatcacc tcacggctac ctatcttctg cttctagcca agaaggctcg	840
gggaaaacca gttcgtthta ggctthctt cttctcctgt ggacaagcca gtgctacccc	900
attcacagac atcaagthta ccaagtactg gacagaatca aatggggtgg aatctaaatc	960
attaactcca gccttatgca gaacacctgc aaataaatta aagaacaaag aaaatgtata	1020
tactcctaag tctgctgtaa agaatagaaga gtactthtatg tttcctgagc caaagactcc	1080
agttaataag aaccagcata agagagaaat actcactacg ccaaatacgtt aactacacc	1140
ctcaaaagct agaaaccagt gcctgaaaga aactccaatt aaaataccag taaattcaac	1200
aggaacagac aagttaatga caggtgtcat tagccctgag aggcgggtgcc gctcagtgga	1260
attggatctc aaccaagcac atatggagga gactccaaaa agaaagggag ccaaagtgtt	1320
tgggagcctt gaaagggggg tggataaggt tatcactgtg ctcaccagga gcaaaaggaa	1380
gggttctgcc agagacgggc ccagaagact aaagcttcac tataatgtga ctacaactag	1440
attagtgaat ccagatcaac tgttgaatga aataatgtct attcttccaa agaagcatgt	1500
tgactthtga caaaagggtt atacactgaa gtgtcaaaca cagtcagatt ttgggaaagt	1560
gacaatgcaa tttgaattag aagtgtgcca gcttcaaaaa cccgatgtgg tgggtatcag	1620
gaggcagcgg cttaagggcg atgcctgggt ttacaaaaga ttagtggaag acatcctatc	1680
tagctgcaag gtagaattct gataatgagc ggccgcctcg gccaaacatc gata	1734

<211> 2501
<212> DNA
<213> Homo sapiens

<400> 5
cgaaaagatt cttaggaacg ccgtaccagc cgcgtctctc aggacagcag gcccctgtcc 60
ttctgtcggg cgccgctcag ccgtgccctc cgcccctcag gttctttttc taattccaaa 120
taaacttgca agaggactat gaaagattat gatgaacttc tcaaataatta tgaattacat 180
gaaactattg ggacagggtg ctttgcaaag gtcaaacttg cctgccatat cttactgga 240
gagatggtag ctataaaaaat catggataaa aacacactag ggagtgattt gccccggatc 300
aaaacggaga ttgaggcctt gaagaacctg agacatcagc atatatgtca actctaccat 360
gtgctagaga cagccaacaa aatattcatg gttcttgagt actgccctgg aggagagctg 420
tttgactata taatttccca ggatcgctg tcagaagagg agaccgggt tgtcttccgt 480
cagatagtat ctgctgttgc ttatgtgcac agccagggt atgctcacag ggacctcaag 540
ccagaaaatt tgctgtttga tgaatatcat aaattaaagc tgattgactt tggctctctgt 600
gcaaaaccca agggtaacaa ggattaccat ctacagacat gctgtgggag tctggcttat 660
gcagcacctg agttaataca aggcaaatca tatcttgat cagaggcaga tgtttgagc 720
atgggcatac tgttatatgt tcttatgtgt ggatttctac catttgatga tgataatgta 780
atggcctttat acaagaagat tatgagagga aaatatgatg ttcccaagtg gctctctccc 840
agtagcattc tgcttcttca acaaatgctg cagggtggacc caaagaaacg gatttctatg 900
aaaaatctat tgaaccatcc ctggatcatg caagattaca actatcctgt tgagtggcaa 960
agcaagaatc cttttattca cctcgatgat gattgcgtaa cagaactttc tgtacatcac 1020
agaaacaaca ggcaaacaat ggaggattta atttcaactgt ggcagtatga tcacctcacg 1080
gctacctatc ttctgcttct agccaagaag gctcggggaa aaccagttcg ttttaaggctt 1140
tcttctttct cctgtggaca agccagtgt accccattca cagacatcaa gtcaaataat 1200
tggagtctgg aagatgtgac cgcaagtgat aaaaattatg tggcgggatt aatagactat 1260
gattggtgtg aagatgattt atcaacaggt gctgctactc cccgaacatc acagtttacc 1320
aagtactgga cagaatcaaa tggggtggaa tctaaatcat taactccagc cttatgcaga 1380
acacctgcaa ataaattaa gaacaaagaa aatgtatata ctctaagtc tgctgtaaag 1440
aatgaagagt actttatgtt tcctgagcca aagactccag ttaataagaa ccagcataag 1500
agagaaatac tcactacgcc aaatcgttac actacaccct caaaagctag aaaccagtgc 1560

```

ctgaaagaaa ctccaattaa aataccagta aattcaacag gaacagacaa gttaatgaca 1620
gggtgtcatta gccctgagag gcggtgccgc tcagtgggaat tggatctcaa ccaagcacat 1680
atggaggaga ctccaaaaag aaagggagcc aaagtgtttg ggagccttga aagggggttg 1740
gataaggtta tcaactgtgct caccaggagc aaaaggaagg gttctgccag agacgggccc 1800
agaagactaa agcttcacta taatgtgact acaactagat tagtgaatcc agatcaactg 1860
ttgaatgaaa taatgtctat tcttccaaag aagcatgttg actttgtaca aaagggttat 1920
acactgaagt gtcaaacaca gtcagattttt gggaaagtga caatgcaatt tgaattagaa 1980
gtgtgccagc ttcaaaaacc cgatgtggtg ggtatcagga ggcagcggct taagggcgat 2040
gcctgggtttt acaaaaagatt agtgaagac atcctatcta gctgcaaggt ataattgatg 2100
gattcttcca tcctgccgga tgagtgtggg tgtgatacag cctacataaa gactgttatg 2160
atcgctttga ttttaaagtt cattggaact accaacttgt ttctaaagag ctatcttaag 2220
accaatatct ctttgttttt aaacaaaaga tattattttg tgtatgaatc taaatcaagc 2280
ccatctgtca ttatgttact gtctttttta atcatgtggt tttgtatatt aataattgtt 2340
gactttctta gattcacttc catatgtgaa tgtaagctct taactatgtc tctttgtaat 2400
gtgtaatttc tttctgaaat aaaaccattt gtgaatataa aaaaaaaaaa aaaaaaaaaa 2460
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a 2501

```

```

<210> 6
<211> 651
<212> PRT
<213> Homo sapiens

```

```

<400> 6

```

```

Met Lys Asp Tyr Asp Glu Leu Leu Lys Tyr Tyr Glu Leu His Glu Thr
1           5           10           15

```

```

Ile Gly Thr Gly Gly Phe Ala Lys Val Lys Leu Ala Cys His Ile Leu
          20           25           30

```

```

Thr Gly Glu Met Val Ala Ile Lys Ile Met Asp Lys Asn Thr Leu Gly
          35           40           45

```

```

Ser Asp Leu Pro Arg Ile Lys Thr Glu Ile Glu Ala Leu Lys Asn Leu
          50           55           60

```

```

Arg His Gln His Ile Cys Gln Leu Tyr His Val Leu Glu Thr Ala Asn

```


65	70	75	80
Lys Ile Phe Met Val Leu Glu Tyr Cys Pro Gly Gly Glu Leu Phe Asp	85	90	95
Tyr Ile Ile Ser Gln Asp Arg Leu Ser Glu Glu Glu Thr Arg Val Val	100	105	110
Phe Arg Gln Ile Val Ser Ala Val Ala Tyr Val His Ser Gln Gly Tyr	115	120	125
Ala His Arg Asp Leu Lys Pro Glu Asn Leu Leu Phe Asp Glu Tyr His	130	135	140
Lys Leu Lys Leu Ile Asp Phe Gly Leu Cys Ala Lys Pro Lys Gly Asn	145	150	155
Lys Asp Tyr His Leu Gln Thr Cys Cys Gly Ser Leu Ala Tyr Ala Ala	165	170	175
Pro Glu Leu Ile Gln Gly Lys Ser Tyr Leu Gly Ser Glu Ala Asp Val	180	185	190
Trp Ser Met Gly Ile Leu Leu Tyr Val Leu Met Cys Gly Phe Leu Pro	195	200	205
Phe Asp Asp Asp Asn Val Met Ala Leu Tyr Lys Lys Ile Met Arg Gly	210	215	220
Lys Tyr Asp Val Pro Lys Trp Leu Ser Pro Ser Ser Ile Leu Leu Leu	225	230	235
Gln Gln Met Leu Gln Val Asp Pro Lys Lys Arg Ile Ser Met Lys Asn	245	250	255
Leu Leu Asn His Pro Trp Ile Met Gln Asp Tyr Asn Tyr Pro Val Glu	260	265	270
Trp Gln Ser Lys Asn Pro Phe Ile His Leu Asp Asp Asp Cys Val Thr	275	280	285
Glu Leu Ser Val His His Arg Asn Asn Arg Gln Thr Met Glu Asp Leu	290	295	300

Ile Ser Leu Trp Gln Tyr Asp His Leu Thr Ala Thr Tyr Leu Leu Leu
305 310 315 320

Leu Ala Lys Lys Ala Arg Gly Lys Pro Val Arg Leu Arg Leu Ser Ser
325 330 335

Phe Ser Cys Gly Gln Ala Ser Ala Thr Pro Phe Thr Asp Ile Lys Ser
340 345 350

Asn Asn Trp Ser Leu Glu Asp Val Thr Ala Ser Asp Lys Asn Tyr Val
355 360 365

Ala Gly Leu Ile Asp Tyr Asp Trp Cys Glu Asp Asp Leu Ser Thr Gly
370 375 380

Ala Ala Thr Pro Arg Thr Ser Gln Phe Thr Lys Tyr Trp Thr Glu Ser
385 390 395 400

Asn Gly Val Glu Ser Lys Ser Leu Thr Pro Ala Leu Cys Arg Thr Pro
405 410 415

Ala Asn Lys Leu Lys Asn Lys Glu Asn Val Tyr Thr Pro Lys Ser Ala
420 425 430

Val Lys Asn Glu Glu Tyr Phe Met Phe Pro Glu Pro Lys Thr Pro Val
435 440 445

Asn Lys Asn Gln His Lys Arg Glu Ile Leu Thr Thr Pro Asn Arg Tyr
450 455 460

Thr Thr Pro Ser Lys Ala Arg Asn Gln Cys Leu Lys Glu Thr Pro Ile
465 470 475 480

Lys Ile Pro Val Asn Ser Thr Gly Thr Asp Lys Leu Met Thr Gly Val
485 490 495

Ile Ser Pro Glu Arg Arg Cys Arg Ser Val Glu Leu Asp Leu Asn Gln
500 505 510

Ala His Met Glu Glu Thr Pro Lys Arg Lys Gly Ala Lys Val Phe Gly
515 520 525

Ser Leu Glu Arg Gly Leu Asp Lys Val Ile Thr Val Leu Thr Arg Ser
530 535 540

Lys Arg Lys Gly Ser Ala Arg Asp Gly Pro Arg Arg Leu Lys Leu His
545 550 555 560

Tyr Asn Val Thr Thr Thr Arg Leu Val Asn Pro Asp Gln Leu Leu Asn
565 570 575

Glu Ile Met Ser Ile Leu Pro Lys Lys His Val Asp Phe Val Gln Lys
580 585 590

Gly Tyr Thr Leu Lys Cys Gln Thr Gln Ser Asp Phe Gly Lys Val Thr
595 600 605

Met Gln Phe Glu Leu Glu Val Cys Gln Leu Gln Lys Pro Asp Val Val
610 615 620

Gly Ile Arg Arg Gln Arg Leu Lys Gly Asp Ala Trp Val Tyr Lys Arg
625 630 635 640

Leu Val Glu Asp Ile Leu Ser Ser Cys Lys Val
645 650